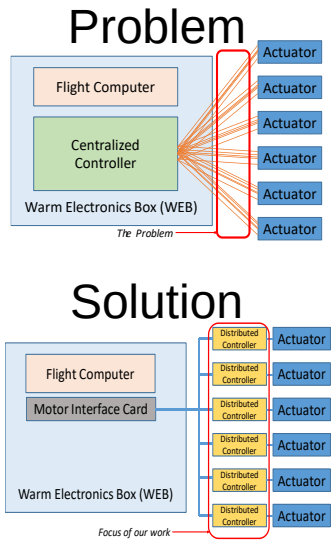
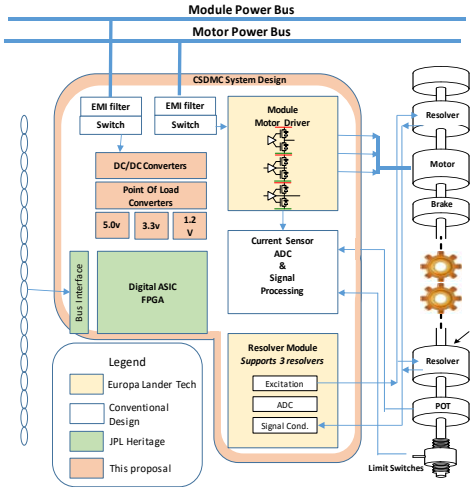
Cold Survivable Distributed Motor Controller (CSDMC)





Block Diagram

Team Member(s)/Institution(s)

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Technology Overview/Description

- We will develop modules utilizing our advanced packaging technology that can used to construct a single, compact motor controller that can be co-located at or near the motors.
- This work will build upon NASA Game Changing Technology effort which funded the development of motor driver and resolver modules.
- This technology will enable a 10X reduction in cable mass for motor control, remote control and state monitoring applications.

Technology Goals

1. Point of Load Converter Module
   - Input voltage ranges 5—15V, output voltage range 0.7—7V
   - 90% or greater efficiency
   - >300Krad, < 1.8cm x 1,8cm
2. DC – DC Converter Module
   - Input voltage range 14—36V, output voltage range 3.3-15V
   - 85% or greater efficiency
3. CSDMC System Design
   - Show how all the currently and previously developed modules will come together to implement the CSDMC.